

DOCUMENT RESUME

ED 121 277

IR 003 254

AUTHOR Blalack, Richard O.; Davis, Herbert J.
TITLE Experiential Optimization in a Game Simulation.
PUB DATE Apr 76
NOTE 17p.; Paper presented at the Annual Meeting of the American Educational Research Association (San Francisco, California, April 19-23, 1976)

EDRS PRICE MF-\$0.83 HC-\$1.67 Plus Postage
DESCRIPTORS Collective Bargaining; *Educational Games; Higher Education; *Simulation; *Student Participation
IDENTIFIERS Student Enthusiasm; Vested Interest

ABSTRACT

In order to enhance the role playing ability of the participants in a simulation game on collective bargaining and to cultivate a sense of "vested interest" in the game's outcome, the students first prepared positions supporting the union or the management position in a hypothetical case. They were required to defend their position orally. The class was also required to present a joint solution to a case study to improve their teamwork skills. The framework of the actual game consisted of introducing the factor of "vested interest" by relating grade assignments to goal achievement in the game and by the use of various handouts containing historical background material and mock contracts, balance sheets, and income statements. The role of the instructor in the game consisted of three functions: control, judicial, and approval. A debriefing session held after the games permitted the negotiating teams to exchange presubmitted objectives and to discuss the strategies and tactics they employed in the course of the negotiation. (Author/JY)

* Documents acquired by ERIC include many informal unpublished *
* materials not available from other sources. ERIC makes every effort *
* to obtain the best copy available. Nevertheless, items of marginal *
* reproducibility are often encountered and this affects the quality *
* of the microfiche and hardcopy reproductions ERIC makes available *
* via the ERIC Document Reproduction Service (EDRS). EDRS is not *
* responsible for the quality of the original document. Reproductions *
* supplied by EDRS are the best that can be made from the original. *

ED121277

IR

EXPERIENTIAL OPTIMIZATION
IN A GAME SIMULATION

Richard O. Blalack
Department of Management
College of Business
Northern Illinois University

and

Herbert J. Davis
Department of Business Administration and Management
School of Business
Virginia Commonwealth University

1976
AMERICAN EDUCATIONAL RESEARCH ASSOCIATION
Simulation Systems
Special Interest Group

2

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

THIS DOCUMENT HAS BEEN REPRO-
DUCED EXACTLY AS RECEIVED FROM
THE PERSON OR ORGANIZATION ORIGIN-
ATING IT. POINTS OF VIEW OR OPINIONS
STATED DO NOT NECESSARILY REPRESENT
OFFICIAL NATIONAL INSTITUTE OF
EDUCATION POSITION OR POLICY.

003 254

EXPERIENTIAL OPTIMIZATION IN A GAME SIMULATION

Richard O. Blalack
Northern Illinois University
and

Herbert J. Davis
Virginia Commonwealth University

The use of role-playing and simulation games are not particularly new phenomena in the educational scene (4,5). The Utilization of these techniques is predicated upon their ability to not only impart knowledge of the complexities in the actual situation to which the simulation is directed, but also to enhance the perceptions of the students regarding the roles of the participants in the actual environment. The experiential quality of role-playing, moreover, makes these techniques particularly appropriate. The utility of these techniques, however, tends to be somewhat hindered by inherent weaknesses in their implementation (2).

Simulation games may be generally and typically classified as being of either short duration or of long duration (5,8,11). Short duration games are considered as those involving one to six hours of class time. The intensity of role involvement is normally quite low during these games, with the emphasis being placed on procedures and issues. The low level of emotional commitment tends to relegate the student/participants to the level of observers rather than of active participants. In fact, scripts are often utilized to ensure role stabilization and coverage of major issues (6,11).

Long duration games are much less frequently implemented than those of short duration. This is largely due to the fact that the content of many courses is such that the exigencies of material coverage often precludes the expenditure of much more than a few class hours on the gaming process. Long duration games usually involve the use of at least half of the total available class time for the purpose of gaming (3,6). These games afford considerably more emotional involvement in the role-playing construct and, therefore, provide an increased depth in awareness and understanding of the game-simulated environment. In this regard, long duration games can be said to attempt to add the dimension of "realism" to the game construct. The success of such an attempt, however, is ultimately dependent upon the creation of a sense of "vested interest" on the part of the role-players in the qualitatively successful achievement of game-directed goals.

The addition of the element of "vested interest" permits the game to closely approximate the emotional climate of the actual situational environment to which the game is directed. Additionally, the institution of "vested interest" serves to intensify and strengthen the role-commitment of the players (9,10). The consequent enhancement of the sense of "realism" in the game construct, therefore, provides for an increase in the depth of exposure of the students to the simulated process (2).

During the past six years, the first author has utilized the game technique as the primary pedagogy for both graduate and undergraduate courses in collective bargaining (3). In order to achieve maximum utility from the game, emphasis is placed on "realism" with

the concept of "vested interest" being cultivated and stressed. The resultant game closely simulates the psychological environment of labor-management negotiations and, consequently, significantly increases the value of the game as a teaching technique.

PSYCHOLOGICAL PREPARATION

In order to enhance the role-playing ability of the student/participants and to cultivate a sense of "vested interest" in the qualitative outcome of the bargaining game, a period of psychological conditioning and preparation precedes the game. Since collective bargaining is a conflict resolution process, participants in the bargaining game need to be mentally conditioned to recognize issues in conflict and to effectively work within the antagonistic environment. Two techniques are employed to satisfy the need for such conditioning.

The first technique involves the use of text materials supplemented by lecture and discussion. This technique is used to familiarize the student/participants with the nature and purpose of collective bargaining, as well as the various strategies and tactics utilized in the achievement of bargaining objectives.

The second technique utilized during the preparation phase of the game is case presentation. Whereas the first technique is exclusively used during the first three to five hours of class time, case presentations are employed concurrently and supplementally with lecture and discussion for the period thereafter.

Two methodologies are employed in the case presentations. In the first method, the student/participants are assigned cases

to be presented orally. The same cases are simultaneously assigned to all students. In addition, the students are instructed to derive two opposing conclusions for each case. That is, each student is required to develop a management-favoring and a union-favoring solution to each case. For the purpose of oral presentation of the cases, one student is chosen for the management-favoring position and one for the union-favoring position. Selection of students for the oral presentations is done immediately prior to the presentations and selection is on a relatively random basis. This is done in order to ensure student preparation and somewhat equal treatment of both positions in the cases. The oral presentations are followed by open discussion from the other students of the relative merits of each position presented. Finally, a score is tallied for each of the two positions.

The institution of a forced conflict environment in the case presentations is undertaken in order to condition the student/participants to the conflict environment of the game by:

- 1) creating an awareness and appreciation of the potential positions and arguments of the opposition;
- 2) developing a sense of anticipation of the potential and actual strongpoints of the positions and arguments of the opposition;
- 3) heightening the awareness of the student's own positional strongpoints relative to those of the opposition;
- 4) providing insight into the student's own behavioral patterns and their relative effectiveness in a conflict situation.

The second method of case presentation utilizes the approach of team problem-solving. In this method, a single case is assigned

to the class as a whole or to a group within the class. The group is then required to present a joint solution to the case problem. A score is not tallied after the presentation of the case and, thereby, conflict is minimized. Furthermore, since the case solution is the result of a joint problem-solving effort with individual input not recognized in the group conclusion, intra-group conflict is also minimized.

The latter method of case presentation is felt to be of value in reducing any latent dysfunctional attitudinal structuring which may have been created by the induced conflict of the first technique. In addition, the student/participants receive experience in working within a team framework for problem-solving while obtaining additional insight into their own behavioral patterns and those of the other student/participants.

In terms of psychological preparation for the bargaining game, therefore, the use of the first technique of text, lecture, and discussion can be said to provide a philosophical and conceptual framework for the collective bargaining process. Both of the case presentation methodologies, however, provide experiential conditioning for conflict resolution.

NEGOTIATING TEAMS

Following the conclusion of the psychological preparation, the negotiating teams are chosen for the game simulation. Each side in the game is composed of two or three members. The selection of the teams typically takes place after nine to twelve hours of class time has been devoted to the preparation phase. It is felt that

earlier team selection would tend to somewhat negate the conditioning influences of the case presentations by prematurely rigidifying and biasing the interactional responses to individual presentations and heightening intra-group conflict in the joint presentations.

The possibility of these negative aspects is particularly pertinent since the composition of the teams remains unchanged throughout the duration of the game. This is done in an effort to maintain continuity in the bargaining construct. Such continuity derives its importance from its prerequisite status with respect to the implementation of viable strategies and tactics relative to the gaming process.

The limitation as to team size serves to maximize student participation and involvement in the game without creating an over-burdening workload in the data collection process preceeding actual bargaining. In addition, the relatively small size of the bargaining teams permits rapid decision-making during the critical final negotiation sessions.

ENVIRONMENTAL FRAMEWORK

Concurrent with the selection of negotiating teams is the provision for the establishment of the environmental framework within which the bargaining game is set. In this regard, two interrelated environmental configurations are stipulated.

The first configuration can be termed the endogenous environment. This environment consists of hand-outs containing the historical background of the company and union to be represented in the simulation and includes a consolidated balance sheet and income

statement of the company. In addition, a labor contract between the company and the union, from which a new contract is to be evolved, is also presented.

The mock contract provided to the game participants is specifically constructed to be consistent with and reflect the simultaneously provided background material. In addition, the construction of the mock contract is such as to make it a substantially viable and complete counterfeit of an actual labor agreement. However, the construction of the contract is such as to give a slight management-favoring bias. This bias has been implanted in order to increase the possible scope of the game by widening the areas of conflict and, thereby, broaden the experiential learning universe of the student/participants.

The exogenous environment forms the other environmental configuration of the bargaining framework. The factors which are associated with this configuration are those which form the "vested interest" concept of the game and provide for the timing and duration of the game. In this regard, included also within this environmental classification is the provision for the grading of team performance in the game.

In order to closely simulate true labor-management bargaining, a strike deadline is artificially imposed as the last day of the semester (1). The date of contract expiration is set as the last scheduled day of class. By providing such a differential, it is possible to permit a strike-no strike decision and to permit a short-term contract extension period for the purpose of settlement of relatively minor issues. If no new contract is obtained by the

last day of the semester, a strike situation is held to exist and the participants receive a grade of "Incomplete" for the course. As the duration of the strike increases, that is, as the duration of the "Incomplete" extends, grade assignments as a function of goal achievements become more closely dependent upon actual achievement of the pre-stated goals. Therefore, the value received from the contract settlement must justify the strike costs incurred and associated with the effort to achieve the settlement (7).

BARGAINING OBJECTIVES

As has been stated, grade assignments are primarily determined by relative achievement of predesignated bargaining objectives. The methodology employed for the determination of these objectives utilizes the concepts of "target", "will-accept", and "resistance" points (10). Each negotiating team is required to submit, independently, its objectives within six class hours after being presented with the game materials. The submission is final and the points may not be changed during the course of the negotiations. The immutability of team objectives serves the purpose of somewhat rigidifying individual and team commitments to the game and permits continuity in strategic and tactical considerations.

Once these objectives have been submitted, negotiations may begin at the discretion of the bargaining teams. The conduct of the negotiations are somewhat unstructured and the student/participants are able to make their own decisions relative to the timing and duration of the negotiating sessions. In this manner, these two elements become bargainable in themselves, and the dimension of "realism" is yet further enhanced.

The target points specified in the team objectives represent the ultimate achievable goal with respect to either a specific issue or to a total contract package. Resistance points, on the other hand, represent the minimum acceptance point of the targeted objectives or of the total package. Settlement which would be below a resistance point is seriously detrimental to the team grade. Generally, negotiating teams would be willing to sustain a strike to prevent settlements where one or more issues would be resolved below the resistance point level. The will-accept points represent those points above which the teams would consider the settlement to be relatively successful.

Strategically, therefore, the negotiating teams would strive for settlements falling within the range between the will-accept and target points and seek to avoid settlements falling within the range of the will-accept and resistance points. Team grade assignments, therefore, are a reflection of successful implementation of the strategies, with the greatest success and, consequently, the highest grade, being associated with the attainment of the specified target points. By directly relating individual student grades to team goal achievement, the student/participants are provided with a sense of "vested interest" not only in the absolute resolution of the conflict in the form of a new contract settlement, but also in the quality of the settlement with regard to specific issues or to a specific package settlement.

ROLE OF THE INSTRUCTOR

The role of the instructor in the collective bargaining game consists of three functional elements. These elements can

be termed as the control function, the judicial function, and the approval function.

The purpose of the control function is to maintain a high level of qualitative sophistication in the negotiation process and to attempt to maintain relative positional equality between the two teams engaged in negotiations. This purpose is largely accomplished through the use of post-session critiques. These critiques are performed immediately following a negotiation session and are particularly valuable during the early stages of the negotiation process. The critiques largely consist of evaluation of technique and tactic effectiveness. However, strategy revelations, as perceived by the instructor, and advisory comments may also be made during this period.

The value of the instructor's observations in the first two instances is largely attributable to the high degree of objectivity which is obtainable. The objectivity results from the lack of emotional involvement in the negotiations on the part of the instructor and on the lack of a "vested interest" in the contract settlement. Furthermore, intrinsic bias with respect to strategy revelation is largely reduced by the instructor by not referring to the submitted team objectives until after a contract settlement is reached by the negotiating teams.

The judicial function of the instructor is primarily concerned with matters of contract interpretation and wording and with clarification of the background material when required. However, several other duties fall within the scope of this function. These other duties include the requirement that the instructor

serve in a mediation or arbitration capacity if required in the instance of an impasse in the negotiations, or if requested by both negotiating teams. Performance of the instructor in either capacity results in a lowering of the grade assignments for both of the negotiating teams.

Another irregular duty to be performed by the instructor is service as a counterfeit National Labor Relations Board representative and trial examiner. Service in this capacity is the direct result of either team formally charging the other with an unfair labor practice. Team grade assignments are generally unaffected by the performance of the instructor in this capacity. However, that option is available to enforce compliance with the rulings. Typically, lead times are of sufficient length such that the contract is settled and, subsequently, the charges are dropped before performance in the rôle of trial examiner is necessitated.

The approval function of the instructor is directly related to the submission of team objectives. In the performance of this function, the instructor serves as both the union membership and the management executive committee, or, equivalently, the company board of directors. This function is carried out after the negotiating teams have achieved settlement on a new contract. The instructor then acts within the capacities of this function and the respective union and management negotiating teams then seek to justify the new contract settlement.

The functioning of the approval process is explained to the student/participants prior to the submission of team objectives. Since contract settlement is not finalized until approval is

granted to both teams, this function of the instructor serves as a check on the setting of unrealistically low objectives. In addition, the student/participants are provided a degree of experiential insight into the politics of intra-organizational bargaining (10).

DEBRIEFING

After final approval of the new contract settlement is obtained, a final meeting of the negotiation teams is held. During this meeting, a final critique is made of the overall negotiation process and open discussion is held on the strategies and tactics implemented by the negotiating teams and on their effectiveness in achieving objectives. Additionally, at this meeting, both teams exchange the objectives which had been submitted prior to the negotiations.

This exchange, together with the ensuing discussion with respect to their underlying rationale and significance, provides the student/participants with substantially enhanced insights into the perceptions and ultimate objectives of the opposing team members. These increased perspectives of the student/participants significantly increase the value received from the bargaining game and, together with the experiential value received from game, substantially contribute to the maximization of the utility of the game simulation as a pedagogical technique.

Support for this conclusion has been provided by both formal and informal course evaluations by students who have participated in the game. The significance of the evaluations, moreover, is

enhanced by the fact that a number of the participants have been either former Personnel or Industrial Relations managers, or were currently employed in such a capacity at the time of the game and had possessed previous negotiation experience.

SUMMARY

Although the use of mock collective bargaining games is not a particularly new pedagogical technique, the utility of the technique had been severely restricted by the failure to significantly provide for the dimension of "realism" in the environmental framework of the games. The authors have demonstrated how the introduction of the concept of "vested interest" can be incorporated into the bargaining game construct and, thereby, closely simulate the psychological environment of actual negotiations.

The utilization of the concept of "vested interest" enhances perceived conflict and ~~it is to the resolution of the conflict that~~ the bargaining game is directed. In order to maximize the value received from the conflict resolution process, students participating in the game must be psychologically prepared to meaningfully engage in the conflict. The preparation is largely achieved through the utilization of case presentations.

After the student/participants have been substantially psychologically prepared, they are presented with the environmental framework for the bargaining game. The framework consists of the exogenous and endogenous environments. The exogenous environment provides the basis for the introduction of "vested interest" into the bargaining game, largely by relating grade assignments to goal

achievement. The endogenous environment largely consists of the contextual framework within which the game is played.

The role of the instructor consists of three functions: control, judicial, and approval. In the capacities associated with these functions, the instructor exercises control over the qualitative performance of the student/participants in the bargaining game and maintains continuity of negotiations if they fail to proceed satisfactorily on their own.

A debriefing session is held after the new contract has received final approval. At this session, negotiating teams exchange pre-submitted objectives and discuss the strategies and tactics employed in the course of the negotiations, in addition to the underlying rationale of their implementation. This debriefing, together with the enhanced experiential value of the negotiating process created by the introduction of the "vested interest" concept, significantly contributes to the maximization of the utility of the game simulation as a pedagogical technique.

REFERENCES

- (1) Bakke, E. Wight, Clark Kerr, and Charles W. Anrod. Unions, Management and the Public (Third ed.) (New York: Harcourt, Brace and World, Inc., 1967).
- (2) Baldwin, John D. "Influences Detrimental to Simulation Gaming," American Behavioral Scientist, 12 (1969), pp. 14-21.
- (3) Blalack, Richard O. "The Use of Gaming as the Primary Pedagogical Technique for a Course in Collective Bargaining," Proceedings of the Eastern Academy of Management, (1973).
- (4) Joseph, Myron L. "Role Playing in Teaching Economics," American Economic Review, 55 (1965), pp. 556-565.
- (5) Lewis, Darrell R., D. Wentworth, R. Reinke, and W. E. Becker, Jr., Educational Games and Simulations in Economics (New York: Joint Council on Economic Education, 1974).
- (6) Lloyd, John W. "Role Playing, Collective Bargaining, and the Measurement of Attitude Change," The Journal of Economic Education, 1 (1970), pp. 104-110.
- (7) Pen, J. "A General Theory of Bargaining," American Economic Review, 42, (1952), pp. 24-42.
- (8) Sloane, Arthur A. and Fred Witney. Labor Relations (Second ed.) (New Jersey: Prentice-Hall, Inc., 1972).
- (9) Stagner, Ross and Hjalmar Rosen. Psychology of Union-Management Relations (California: Wadsworth Publishing Company, Inc., 1969).
- (10) Walton, Richard E. and Robert B. McKersie. A Behavioral Theory of Labor Negotiations (New York: McGraw-Hill Book Company, 1965).
- (11) Zif, Jay J. and Robert E. Otlewski. Contract Negotiations (Toronto: Collier-Macmillan Canada, Ltd., 1970).